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ABSTRACT

In this case study, the ways in which evaluation, the decision maker, and the change process influenced the use or non-use of federally mandated evaluations of vocational and technical programs were studied for Maryland since 1979. A Discrepancy Analysis was used to determine whether the intended benefits from evaluation implementation and utilization took place between 1983 and 1987. State and local evaluation reports and multi-year plans, action plans developed to record planned change by local education agencies, state education agencies' action plan monitoring reports, and Evaluation Task Force materials were used as sources of information for the study. The use of Maryland's vocational evaluations was influenced by: (1) user involvement; (2) consistency of findings with beliefs and expectations; (3) appropriateness of evaluation assessment, methodology, and intensity; (4) relevance of data to the user; (5) lack of conflicting information; and (6) significance of decisions to users. User commitment was the most important influence in evaluation and evaluation utilization. Four appendices containing evaluation specifications and other related material are included. A revised reference list concludes this document. (SLD)

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Factors Influencing Use of Evaluations in Maryland's High School Vocational Education Program

by

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TABLE OF CONTENTS

		Page
	Abstract	1
I	The Evolution of Evaluation in Maryland's Vocational Education Program	4
	A. Federal Evaluation Mandates	4
	B. Program Evaluation in Maryland, 1978-1982	5
	C. Program Evaluation in Maryland, 1983-1987	9
II	Framework for Assessing Evaluation Use	33
III	Methodology	37
IV	Findings	40
	A. Implementation Factors and the SEA	40
	B. Use Factors and the SEA	43
	C. Use Factors and SCoVE	47
	D. Implementation Factors and the LEAs	50
	E. Use Factors and the LEAs	51
	F. Use Factors and the Statewide Goals	61
V	Discussion and Conclusions	62
	A. Impact of the 1983-1987 Evaluation	62
	B. Recommendations for the Future	65
	Appendices	70
	A. Evaluation Specifications in the 1976 Federal Vocational Education Regulations required of the State Board	71
	B. Evaluation Specifications in the 1984 Federal Vocational Regulations required of the State Board	72
	C. LEA Action Plan Format	73
	D. The Mission, Goals and Objectives of Vocational-Technical Education in Maryland	74
	References	82

LIST OF TABLES

		Page
1	A Comparison of the First and Second Cycles of Evaluation	34
2	Planned Utilization of Evaluation by the SEA	45
3	SEA's Unplanned Utilization and Non-utilization of Evaluation	46
4	SCoVE's Utilization and Non-utilization of Evaluation	49
5	Planned Utilization of Evaluation Described in Three LEAs	56
6	Planned Utilization of Evaluation Described in Three LEAs' Action Plans; Goal II-Quality Programs	57
7	Planned Utilization of Evaluation Described in Three LEAs' Action Plans; Goal III-Support Services	58
8	Planned Utilization of Evaluation Described in Three LEAs' Action Plans; Goal IV- Accountability and Administration	59

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Key Words Vocational Education, Evaluation Utilization

Abstract

In the last decade, research on program evaluation has begun considering what information is collected, needed and used by decisionmakers. Researchers of evaluation utilization have, therefore, been concerned with the definition of use, the evaluation, the decisionmaker and the change process. The present case study provided an ad hoc, retrospective look at how the evaluation, the decisionmaker and the change process influenced use and non-use of federally mandated evaluations of vocational technical programs in Maryland since 1979. It was written from the evaluator's perspective and was based on six-years personal experience as the State Education Agency's (SEA) evaluation specialist and a review of documents. The documents described evaluation or evaluation utilization. Relevant study variables were extracted from the literature (Cousins & Leithwood, 1986; Franchak, 1981) and Discrepancy Analysis (Provus, 1971) was used to summarize the planned and unplanned uses of evaluation made by the State and three of the State's 24 local education agencies (LEAs). This case study was an interim report because all necessary documents were not available when it was written.[1]

[1]A final statewide report covering all 24 Local education agencies (LEAs) can not be available until 1990 because LEAs are cycled through evaluation activities once every five years. However, statewide status reports have been written annually since 1986.

The three factors of program evaluation, decisionmaker settings, and type of use were discussed in terms of the three audiences for vocational education evaluations in Maryland. The audiences were the vocational educators in the LEAs, and SEA, and the State Council for Vocational Education (SCoVE). This discussion was preceded by a description of the evolution of evaluation in Maryland's vocational education program.

Evaluation of vocational-technical programs has been federally mandated in the 1976 educational amendments, and again in the 1984 Carl D. Perkins Act. From an historical perspective, federal and State evaluation requirements and the focus of evaluation have changed with time. The main purpose for evaluation has continued to be program improvement in its broad sense (i.e., State and local levels) but, with each 5-year evaluation cycle, the interpretation of program improvement, and processes to facilitate utilization of evaluation changed. Careful cooperative efforts between State and local vocational education administrators has been a continuous influence in the development and implementation of each evaluation cycle.

The second five-year cycle of evaluations, which took place from 1983-1987, grew in scope, intensity and complexity as the expectations of the SEA, SCoVE and LEAs were integrated. The evaluation grew from two to four phases and from process to process and product evaluation. The four-phased evaluation included: (1) SEA program audits of MIS and archival information about LEAs; (2) LEA self-assessments followed by SEA-directed program visitations/peer reviews; (3) LEA-directed surveys of students, instructors, cooperative education employers; and, (4) SEA-directed surveys of graduates and their employers. Phases 1 and 2 primarily assessed program operation (process evaluation) whereas the latter two phases assessed program outcomes (product evaluation). A total of 21 standardized instruments were used.

Within the 1983-1987 timeframe, the goals for evaluation implementation were met. Goals for utilization of evaluation (i.e., planning and making programmatic changes) were addressed but not completely met. There were several reasons that planned program improvements were not made. For the SEA, SCoVE and LEAs, time was a factor; some changes take more than 2 or 3 years. The source of the findings were a factor; survey findings were not prescriptive. Likewise, program/school visits could not be generalized to those which were not visited. Limited financial resources precluded making major facilities modifications. Recommendations involving program components not directly supervised within the SEA or LEA vocational programs were difficult to respond to adequately or swiftly. And finally, evaluation criteria and/or recommendations were sometimes in conflict with other program goals.

On the positive side, vocational educators in the SEA, SCoVE, and LEAs have continued doing their part to improve vocational programs based on evaluation. After having been evaluated, LEAs took ownership for improving their programs by planning and implementing specific activities in response to program/school visits. The SEA included specific staff assignments in the 1987-1988 plan of work to monitor and facilitate the LEAs' program improvement efforts. The State Council (i.e., SCoVE) began lobbying for support of program improvements. The vocational education community has been particularly responsive to evaluation findings associated with two of the four Statewide goals for vocational education.

One unintended outcome of evaluation was that Maryland's vocational education community realized that program improvements were <u>not</u> a natural outgrowth of evaluation implementation. A second unintended outcome of evaluation was that all three groups became more well informed about the status of vocational

education in meeting its goals and in serving its clients. Unintended uses of evaluation have included federal and State reporting for compliance reasons and informing vocational education's different national, State and local publics for public image-building.

Of the six major evaluation utilization factors revealed by empirical research (see Cousins and Leithwood, 1986), all factors were found to influence use of Maryland's vocational education evaluations. However, the primary factor seemed to be that users were involved in the evaluation and had prior commitment to the benefits of evaluation. The commitment of the SEA, SCoVE and LEAs has continued; now they have begun planning for the third cycle of evaluations. Findings from the meta evaluation described in this paper suggest that two important issues for the 1988 evaluation cycle are: (1) the facilitation, monitoring, and documentation of evaluation utilization; and, (2) SEA-LEA role differentiation in these activities. Several strategies were recommended to the SEA that could improve the utilization of future evaluations.

The report concluded that enhancements and barriers to evaluation utilization exist with regard to the implementation of evaluation, type of uses made, and decisions. Furthermore, the concept of program evaluation has evolved since 1978.

I--THE EVOLUTION OF EVALUATION IN MARYLAND'S VOCATIONAL EDUCATION PROGRAM

A. Federal Evaluation Mandates

Program evaluations have been required of Maryland's federally funded vocational programs since the 1976 education amendments (P.L. 94-482) which

reflected congressional concern that there was inadequate information on fund usage, implementation of program components and program effects. The 1984 Carl D. Perkins Act (P.L. 98-525) reaffirmed the need to continue vocational program evaluations. However, the methodological requirements became less precriptive and the purpose of evaluation shifted in emphasis from concern over fund usage and program implementation to assessment of program quality and economic impact in terms of the program's pertinence to: (a) the work place; (b) new and emerging technologies; and, (c) current and projected State labor needs. The Perkins Act was also concerned with the smooth transition from school to work for vocational students. The NIE (1981) national study of vocational education funded under the 1976 amendments, found that process evaluation had been emphasized in State education agencies (SEAs) and Local Education Agencies (LEAs) between 1976-1981. Anticipated assessment of student achievement (i.e., standardized occupational testing programs) and economic outcomes were not implemented because of difficulties associated with obtaining the needed data. This trend described Maryland as well as most other states. The 1984 Perkins Act reaffirmed the evaluation emphasis in economic outcomes but did not specify student testing as a requirement.

See Appendices A and B for a description of the evaluation requirements in the two laws.

B. Program Evaluation in Maryland, 1978-1982

In response to the 1976 Education Amendment, Maryland's State Education Agency (SEA) and Local Education Agency (LEA) administrators, local school teachers and counselors convened in 1978 to develop a peer review program evaluation similar to the school accreditation process used by the National Study of School Evaluation (1977) and others (e.g., see the 1981 NIE study; Wentling &

Lawson, 1975). A standing Evaluation Task Force was established. Maryland's evaluation system was typical for its time in its focus on LEA self-assessments and third-party program visitations. Between the years 1978 and 1982, nearly all programs and schools were evaluated and visited, affecting 1,700 programs in 434 schools and all 24 LEAs. In addition, 2,775 teachers and 78,277 students were surveyed. Each LEA evaluated 20% of its programs each year and was responsible for conducting self-assessment and program visitations and for planning and implementing programmatic changes. The SEA's Division of Vocational-Technical Education (DVTE) annually disseminated data collection instruments and summative quantitative reports associated with the self-assessment. The DVTE also monitored all visits and was sometimes invited by the LEA to serve on evaluation teams, but was not directly involved in other aspects of the evaluation.

The evaluation was designed to gather information which LEAs could use to improve the quality of their vocational programs. The concept of a "vocational program", consistent with the 1976 amendments, was defined through the evaluation to include administration as well as instructional components and ancillary support services like vocational guidance and job placement services. LEA school and program staff rated how well their programs implemented each of thirteen essential program components. These staff were also expected to develop "action plans" to correct weaknesses revealed through evaluation. Action plans were filed with the SEA's DVTE. The evaluation question asked by the 1978 evaluation was "How well are vocational programs operating as viewed by the LEAs?" Components of a quality vocational program addressed by this evaluation are listed below:

1. Program Planning: District-level planning keeps vocational programs current and relevant to the labor market.

2. Philosophy and Procedures: School philosophy and policy support vocational education.
3. Community Resources and Program Promotion: Schools use community resources to support vocational education and they also promote vocational programs to in-school and community groups.
4. Guidance Counseling and Job Placement: Schools provide systematic counseling and job placement services to by vocational students.
5. Instructor Qualifications and Instructor Views: Certified and competent instructional staff are provided full administrative support by the school and community.
6. Program Goals and Objectives: Instructors develop and use measurable goals and objectives which are communicated to students and teach the current, entry-level job knowledge, skills and attitudes.
7. Instructional Materials and Methods: Instructors use diverse materials and methods in order to meet the needs of all students, including the handicapped and educationally disadvantaged.
8. Student Assessment: Program instructors use a criterion-referenced student assessment system which monitors student achievement of occupationally relevant knowledge, skills and attitudes.
9. Craft Committee: Programs are supported by a committee composed of community, labor and employer representatives who provide input to program planning, operation and improvement.
10. Facilities and Equipment: Programs use facilities and equipment which are adequate in terms of safety, program goals and objectives, and the related occupations.
11. Vocational Student Organization: An active student organization is an integral part of the program, teaches leadership skills, and is strongly supported by the school's administration.

12. Student Views: Students hold positive views about the program's instruction, facilities and equipment, support services and the student organization.
13. Cooperative Education: Cooperative education programs--if present: (1) provide directly related, on-the-job experience as an integral part of the instructional process; (2) have adequate staff; and, (3) comply with federal legislation.

The summative reports produced by the SEA's DVTE indicated that LEA self-assessments findings were strongest in programmatic components under the direct control of the local vocational program: district-level planning, clarification of program goals and objectives, utilization of varied instructional materials and methods, teacher certification and adequacy of facilities and equipment. Program weaknesses were more apparent in components not under the direct control of the local programs: job placement services, vocational guidance, use of community resources, and use of program committees. Furthermore, vocational student organizations were not universally accepted by local programs as instructionally important to implement.

The findings and recommendations from the first cycle of evaluation were supposed to result in locally-directed improvements. Many improvements did occur, particularly in program components within direct control of the LEA's vocational programs. However, it was difficult to document factors associated with use because there was no system in place at the SEA's DVTE to monitor or describe program improvements. Furthermore, sanctions (e.g., denial of financial support for poor programs) were not placed on the LEA by the SEA because the vocational-technical program was required by law, to annually award funds based on a formula which did not consider evaluation results. The

funding and evaluation decisions and time cycles were never designed to, and therefore, never did coincided.

From the SEA's perspective, evaluation was a local responsibility. The SEA had no direct need for the information gathered through evaluation or formal means of responding to the LEA's needed assistance in implementing program improvements. However, the SEA was indirectly involved in these activities.

On the positive side, there were many spin-offs from the first cycle of evaluations. It introduced LEAs to a system of self-evaluation, without threat of SEA sanction, and provided criteria for a broad-based statewide model of vocational education. From the SEA's viewpoint, components in the evaluation criteria were incorporated into statewide program standards and specifications (to be used as funding criteria for new programs) and statewide goals and objectives. Also, the SEA had a comprehensive data base which became the baseline for future evaluations, and a new part of their management information system (MIS).

C. Program Evaluation in Maryland, 1983-1987

The focus of program evaluation since 1983, and actually since 1979, has been directed by a standing Evaluation Task Force composed of state and local educators who administer vocational education instruction and ancillary services. This same core group of representatives was instrumental in developing the second cycle (1983), and continues to be for the third (1988) cycle of evaluations. Therefore, careful cooperative efforts between State and local vocational education administrators was a continuous influence in the development and implementation of evaluation.

For 1983-1987, vocational educators wanted to expand the scope of evaluation activities. Local vocational educators were interested in maintaining criteria for good vocational programs described by the earlier evaluation system. However, they also wanted program evaluation to include the measurement of program outcomes by incorporating into the evaluation the previously independently run, SEA--managed, follow-up of vocational graduates and their employers. Also, they thought self-evaluations and program visits carried on each year for five years was burdensome and that a sampling should occur once every five years. The SEA wanted to: (1) follow the national thrust (NIE, 1981) to make more evaluative use of MIS data, (2) become more directly involved in local evaluations and program improvement activities, (3) merge other monitoring and evaluation activities[2] with the federally-mandated evaluation while reducing duplication of data collection (see Appendix B), (4) include an evaluation system more responsive to all the evaluation requirements of 1976 education amendments, (5) institutionalize a way of monitoring and documenting program improvements, (6) more clearly direct its own operation in light of LEA needs revealed in evaluation; and, (7) have more information to response to questions posed by the State legislature which started providing targeted vocational education funds annually since 1982.

The new audience for evaluation had broadened tremendously causing the evaluation to increase in complexity and scope. The evaluation system grew from a 13-component process system to a 21-component process and product system. Evaluation implementation duties increased for the SEA and decreased

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[2]The other monitoring and evaluation activities, which were somewhat duplicative of evaluation, became mandates after the 1979 evaluation system was developed and implemented.

for the LEAs. The emphasis upon evaluation utilization increased for the SEA and LEAs.

The second cycle of evaluations asked one process evaluation question: "Are vocational programs operating as required by the Statewide goals and objectives, Statewide standards and specifications, and other federal and state requirements?" The same evaluation also asked four product evaluation questions: (1) "Are clients of the program satisfied with the program (students, teachers, employers)? (2) Are students achieving the required knowledge, skills, attitudes and grades? (3) Are vocational graduates finding related employment one year after graduation and are they earning a respectable salary? (4) Are the programs relevant to the state's labor market in terms of enrollment patterns?"

The new evaluation instruments addressed components listed below:

1. District Policies: A quality vocational program has district-level philosophy, policies and procedures which are supportive of the statewide vocational education model; district level policies comply with Office of Civil Rights (OCR) requirements for vocational programs.
2. Employment Policies: A vocational program has district-level employment policies and practices which are bias-free and comply with OCR requirements.
3. Community Resources and Program Promotion: A quality vocational program in a school has an organized, comprehensive, written, and implemented plan for vocational program promotion and use of community resources; related activities and materials are bias-free (i.e., comply with OCR requirements).
4. Guidance, Counseling and Job Placement: A quality vocational program has

organized guidance, counseling, and job placement services and materials for vocational students available at the school. The services and materials are bias-free (i.e., comply with OCR requirements).

5. Instructor Qualifications and Instructor Views: A quality vocational program has certified and competent instructors who are satisfied with the program's resources, students, and school and community support.
6. Program Goals and Objectives: A quality vocational program includes instructor development and use of measurable goals and objectives, which are communicated to students, and which teach current entry-level job knowledge, skills and attitudes. To comply with OCR guidelines, the instructional objectives accommodate the needs all students, especially those with special instructional needs. The program content complies with the statewide standards and specifications.
7. Instructional Materials and Methods: A quality vocational program includes the use of a variety of competency-based teaching materials and methods which are up-to-date and relevant for students in terms of learner strategies and aptitude. The program materials and methods comply with OCR requirements if: students of all ability levels and learning styles achieve; and, materials and methods are bias-free, or have been adapted to the student's needs.
8. Student Assessment: A quality vocational program includes the use of a systematic student assessment system which describes attainment of occupational objectives that relate to entry-level job performance. The assessment system is competency-based. The program's assessment system complies with OCR if: it has been screened for bias and if tests are appropriately adapted for students with special need.
9. Facilities, Tools and Equipment: A quality vocational program in a school includes use of facilities, tools and equipment which are adequate

in terms of safety, the program's goals, the related occupation's standards of practice. They comply with statewide specifications for space and equipment.

A vocational program's facilities and equipment comply with OCR requirements if: location or arrangement of vocational facilities do not hinder access or segregate all students, especially the handicapped and males and females; and, special students have appropriately adapted tools and equipment.

A vocational program's facilities and equipment comply with the vocational education legislation (federal, state) if all tools and equipment purchased with federal or state funds are in an inventory system and are tagged.

10. Craft Committee: A quality vocational program in a school includes a well-run program/craft committee composed of community, labor and employer representatives who provide input to program planning, development and improvement.
11. Vocational Student Organization: A quality vocational program in a school has an active, well-run student organization which is an integral part of the program and is strongly supported by the school administration.
12. Student Views, Student Achievement: A quality vocational program includes students who: (1) enrolled after making an informed career decision; (2) have related interests, abilities and hobbies; (3) report themselves as achieving good grades in school; (4) belong to a related student organization; and, (5) hold positive views regarding program instruction, guidance/counseling, job placement services, and the student organization.

A vocational program in a school complies with OCR requirements if students view vocational instruction, counseling and the student organization as treating towards all students equitably.

13. Cooperative Education: A quality vocational education program in a school includes a cooperative education experience which: (1) is integral to the student's occupational preparation; (2) includes the maintenance of training plans and student records; and, (3) involves school staff in supervising the work experience.

    A quality cooperative vocational education should comply with state standards and specifications, child labor laws, minimum work laws, and OCR requirements.

14. Cooperative Education Employer Views: A quality vocational program which provides cooperative educational experiences has students who are viewed in a positive manner by employers. These students meet, exceed or quickly learn job requirements as described by the employer.

15. Use of CBVE: A quality vocational program instructor uses the six components of competency-based vocational education (CBVE) instructional methods and materials in a routine manner.

16. Views of Students Served By VSST: A quality vocational support service team (VSST) in a school serves many students from a variety of occupational programs. These services are viewed as helpful by student clients of the VSST.

17. Views of Teachers Served by VSST: A quality vocational support services team serves instructors who understand the purpose of VSST and view it as a resource in learning about students with special needs or in helping the students achieve and adjust to the vocational education program.

18. VSST: A quality vocational support service team (VSST) has: qualified

staff who provide a broad range or services in a program which is well planned, documented, implemented and publicized and is supported by the school's instructional and administrative staff. It meets the statewide standards and specifications for VSSTs.

19. Supervision of VSST: A quality vocational support service team (VSST) has a school administration that is aware of VSST goals, services and clients and provides the VSST with administrative support and supervision.

20. Views and Status of Graduates (1 year After Graduation): A quality vocational program in the school produces graduates who successfully complete the program and continue training in a related field or find employment in a related field. If working in a related field, they work full-time, earn a good wage and view their high school preparation in a positive manner.

    A quality vocational program shows responsiveness to labor market needs by generating graduate data that shows few unemployed students who are still seeking employment. Such a program does not produce more graduates than the State labor market can employ.

21. Views of Employers of Graduates (1 year After Graduation): A quality vocational program has graduates who are viewed in a positive manner by employers; these graduates meet, exceed or quickly learn job requirements.

The 1983 evaluation cycle included: (1) SEA program audits of MIS data and archival information to form the basis of an "in-house report" and partial basis for selection of visitation sites, (2) LEA self-assessments followed by SEA--directed program visitations/peer reviews, (3) LEA--managed surveys of students, instructors, employers of cooperative education students the same

year as the program visitation, (4) SEA--managed surveys of graduates and their employers one year after the program visitations. The SEA produced a series of evaluation reports for each LEA: in-house review report, on-site report describing visitations, and two survey reports. The first two types of reports also included LEA review before becoming final, which lengthened the report writing process somewhat, but which yielded a comprehensive and useful case study of the LEA. Statewide and LEA-wide survey reports were also developed. Therefore, no "single" final evaluation report was produced for either the State or each LEA. Action plans written by the LEAs in response to the on-site evaluation were set up as the basis of planning local program improvements. (See Appendix C which gives the action plan format.)

At the time of this writing, the evaluation--program improvement "loop" has just begun to close for the first nine LEAs evaluated between 1984 and 1987. Therefore, it has taken three to four years to conduct the entire evaluation and to plan for, implement and document changes. Also, a review of the annual program of work (i.e., annual division-wide objectives) suggested the SEA is more actively promoting itself as a resource for facilitating changes that LEAs described in action plans.

What has the second cycle of evaluations indicated so far about vocational education? It is difficult to give a definitive answer because data from the last seven LEAs have not been reviewed and because aggregation of findings from LEA case-study reports is difficult. However, the trend revealed in the first cycle has occurred again. Local self-assessment findings were strongest in programmatic components under the direct control of the local vocational program. With the newly established SEA criteria for evaluation which uses the statewide goals and objectives as a benchmark these findings can also be described differently. The goals are: I EQUAL ACCESS; II QUALITY PROGRAMS;

III SUPPORT SERVICES FOR STUDENTS AND EDUCATORS; and, IV ADMINISTRATION AND ACCOUNTABILITY. These goals and related objectives are described in Appendix D. Objectives within the goals address vocational education programs and services for secondary, postsecondary and adult students, so not all statewide objectives were adequately addressed by the evaluation.

Surveys of over 32,000 clients (students, teachers, graduates, and employers) in 17 LEAs (DVTE, 1987b) and self-evaluations/visits to 228 programs (approximately 25%) in 56 schools of 11 LEAs indicated that the four basic goals of vocational education were being addressed. However, these data from surveys and case studies also revealed strengths and weaknesses per goal.

I. GOAL ONE: EQUAL ACCESS

1. OBJECTIVE ONE: EQUITY

Strengths

- o 88 percent of all surveyed students believed they were treated equally regardless of sex, and 92 percent believed students were treated equally regardless of race.
- o Of 982 teacher respondents, 285 (39 percent) reported having handicapped students in their classes and 106 (11 percent) had disadvantaged students; 48-68 percent had taken courses since becoming vocational education teachers to prepare themselves to help handicapped and disadvantaged students.
- o 71 percent of surveyed teachers agreed that the Vocational Support Services Team (VSST) helped them prepare special needs students for jobs.

Weaknesses

- o There were significant differences by race and sex when surveyed students were asked to respond to: "I think that male and female students are treated the same in this program; I think students with different racial/ethnic backgrounds are treated the same in this program."

- o LEA self-evaluations and visitations revealed the need to modify documents, policies and procedures (to differing degrees) in order to comply with OCR requirements.

2. OBJECTIVE TWO: ENROLLMENT

Strengths

- o 77 percent of all surveyed occupational students were enrolled in programs they identified as their first choices.

- o 69 percent of all surveyed students enrolled in vocational courses were enrolled to prepare in jobs or college.

- o 62 percent of all non-immediate collegebound surveyed seniors were vocational graduates.

- o For 1984-85 and 1985-86, it appeared that the 78,000 enrollment goal was met.

- o Nontraditional enrollment in three areas was encouraging: Occupational Home Economics--28 percent; Comprehensive Consumer Homemaking--22 percent; Precision Production--15 percent.

Weakness

- o Program enrollment trends indicated that many program areas, particularly those with traditionally male enrollment, continue to have low (2-3 percent) female enrollment.

II Goal Two: Quality Programs

OBJECTIVE ONE: MEETING STATE'S TEN PROGRAM STANDARDS AND SPECIFICATIONS; ADEQUATELY PREPARING STUDENTS

Strengths

- o Program visitations suggested that of the 10 program standards, 3 had been adequately met by 6 of the 11 LEAs. Areas of greatest strength were: staff certification, facilities/tools/equipment, and instruction.
- o 94 percent of all surveyed students reported grades of C or better in their vocational courses, while 66 percent had grades of B or better.
- o 93 percent of responding instructors agreed that program graduates possessed entry-level skills.
- o 95 percent of responding instructors stated that graduates possessed knowledge and skill needed for success in a related course of study.
- o 40 percent of vocational graduates entered postsecondary education.

- o 6 percent of vocational graduates (377 of 6,397 responding) entered the armed services.

- o 66 percent of the vocational graduates (in 11 LEAs) who attended postsecondary schools said postsecondary and high school training were related.

- o Surveys suggested that student accomplishment of basic competencies was being achieved because:

- o 94 percent of responding employers of vocational graduates from eleven LEAs gave positive ratings to their young employees;and, 95 percent of employers of cooperative education students in 17 LEAs rated them as well prepared.

Weaknesses

- o Program visitations suggested that major improvements were needed to meet program standards addressing program committees, vocational student organizations, public relations/use of community resources, and evaluation (through craft committee input).

- o 18 percent of Construction Trades graduates were rated by their employers as poorly prepared.

- o 14 percent of cooperative education students in Occupational Home Economics were rated by their employers as poorly prepared.

OBJECTIVE TWO: CONSUMER EDUCATION

Strength

- o 90 percent of Comprehensive Consumer and Homemaking students reported that the program prepared them for the roles of consumer, homemaker, and wage earner. (Views of other students were not assessed.)

OBJECTIVE THREE: SAFETY AND BARRIER-FREE FACILITIES

Strengths

- o The program visitations noted specific program access, safety, lighting, ventilation and acoustics problems for less than 26% of the programs.
- o Safety was being addressed because 92 percent of surveyed students acknowledged the presence of such training.
- o 97 percent of the employers of graduates and 97 percent of the employers of cooperative education students agreed that safe work habits were possessed by these employees.

Weakness

- o Some suggestions for all visited vocational centers[3] were made

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[3]Comprehensive high schools were not reviewed for physical accessibility. Many of these high schools were built before requirements for physical accessibility by the handicapped were developed for public schools.

with regard to physical access by handicapped individuals.

Modifications included:

1. Making curb cuts between parking spaces, and walkways; for the handicapped;
2. Installing emergency alarms for the visually or hearing impaired;
3. Posting the universal wheelchair insignia to designate accessible doors, restrooms and elevators;
4. Modifying entrances, signs and elevator controls for the visually impaired;
5. Making all levels of a building accessible by a ramp or elevator; and,
6. Lowering wall-mounted telephones and drinking fountains to accommodate persons in wheelchairs.

OBJECTIVE FOUR: VOCATIONAL STUDENT ORGANIZATIONS (VSOs)

Strengths

- o Surveyed employers of 94 percent graduates and 95 percent cooperative education students positively rated their employees in non-technical and general job skills. It is possible that these skills were taught and strengthened by the program in lieu of the VSOs.

- o One or more VSOs existed at most vocational centers or vocational high schools, according to program and school visits.

Weaknesses

o Program visits suggested the following weaknesses were associated with VSOs operation:

1. Existing student VSOs needed revitalization because they had little visibility or functioned below their potential.
2. These VSOs needed to be more fully integrated into instruction, stressing leadership and entrepreneurism development over participation in competitive events.
3. School and central office administrators generally did not actively support VSOs.

(Maryland State Council on Vocational-Technical Education, 1987, p. 51.)

o Few of the surveyed students, were members. (24% occupational and 6% of Comprehensive Consumer and Homemaking students).

OBJECTIVE FIVE: ARTICULATION

Weakness

o LEA visits revealed that only two of 11 LEAs had any formal articulation agreements with their local community college.

OBJECTIVE SIX: COMPETENCY-BASED INSTRUCTION (CBVE)

Strength

o Program visitations suggest that most programs have one or more parts of the State's six-component CBVE model.

Weakness

- o Of the few programs (6%) visited in 11 LEAs and assessed for CBVE implementation, two LEAs were estimated to be using CBVE at the 80% level or better. Recommendations in most LEA case studies (n=17 LEAs) described that the following six priorities should be established by the SEA to improve CBVE use:

1. Teacher sharing of ideas for implementation strategies, including peer support (coaching) and program visits.
2. Curriculum updating or new curriculum development for new teachers.
3. Sharing of successful grading and student assessment strategies.
4. Emphasize use of CBVE in Home Economics and Business Education programs; teachers in these programs were much less familiar with CBVE than teachers in trades/industry programs.
5. Professional recognition of teachers who have exemplary CBVE programs.
6. Teacher use of computer-managed instruction. (Sharkey, 1987.)

OBJECTIVE SEVEN: CONTENT OF CONSUMER AND HOMEMAKING

Strength

- o Of the 23 Comprehensive Consumer and Homemaking programs visited in 11 LEAs, only five programs in two LEAs were found to need program content revisions.

III Goal Three: Support Services

OBJECTIVE ONE: CAREER GUIDANCE, COUNSELING, AND PRE-VOCATIONAL SERVICES

Strengths

- Most (97 percent) of the surveyed occupational students indicated they received general counseling services from various school staff, especially counselors and vocational instructors. Of these, between 57-87 percent had been provided specific career guidance and placement services.

Weakness

- No single LEA operated all components of the idealized, quality vocational guidance program. Individualized career guidance was typically only given to special needs students while "regular" students received career guidance in group or classroom settings.

OBJECTIVE TWO: JOB INFORMATION, JOB PLACEMENT AND FOLLOW-UP

Strengths

- The desired 75 percent response rate for graduate follow-up was nearly met.

- 60 percent of all seniors and 46 percent of all students received some form of job information or job placement help. The 60 percent figure was consistent with the fact that 56 percent planned to go to work after high school.

- 70 percent of all seniors and 71 percent of all students believed that the school would help them find a job.

- Students enrolled in programs nontraditional for their sex received at least as much placement help as students in traditional programs.

- Handicapped and disadvantaged students were well served by job information and job placement staff, according to student surveys.

Weaknesses

- Program visitations suggested that formal job placement services were provided system-wide in one of 11 LEAs; four other LEAs had school-based services at their vocational-technical centers.

- Only six LEAs had special job placement projects supported by DVTE grants.

- 58 percent of graduates were in training-related jobs. This figure compared favorably with national figures (Campbell & Elliot, 1987) but fell short of the Statewide goal. Also, this figure was considered very conservative for two reasons:

  1. While students may be in the industry for which they were trained, they may be performing entry level tasks they consider unrelated.

  2. Only students were asked to comment on the relationship; no employers commented on this subject. The 94 percent favorable response rate from employers suggests that graduates underestimated their training.

- o Craft committee activity was low. This condition can limit placement opportunities for graduates.

- o Programs such as General Office Clerk and Clerk Typist were overenrolled, (supplying many more graduates than the labor market could absorb).

OBJECTIVE THREE: VOCATIONAL PROFESSIONAL DEVELOPMENT

Strengths

- o Teacher surveys indicated that inservice needs were being met.

- o Between 36 and 68 percent of 982 surveyed instructors indicated they had had courses or inservice in working with students with special needs; 39 percent reported that such students enrolled in their program.

- o 94 percent of the respondents were certified in their vocational area.

- o 93 percent had participated in one or more upgrading activities.

- o 51 percent were members in a related trade, technical or professional organization.

OBJECTIVE FOUR: ADMINISTRATION AND ACCOUNTABILITY

Strengths

- o 74 percent of graduates from the one-year follow-up (11 LEAs) had been trained in the "top 40 Maryland" trades.

- Unemployment rate of graduates was approximately 6.4 percent (1984-1986).

- 94 percent of employers of graduates (11 LEAs) and 95 percent of employers of cooperative education students (17 LEAs) gave positive ratings to their employees.

- Although 62 percent of these employers were not very familiar with the vocational programs, over 97 percent of them would hire another vocational student/graduate and recommend the same to a colleague.

- Approximately 88 percent of the responding instructors indicated that employers contact their school seeking graduates as employees.

- The in-house review process revealed that all LEAs filed their local applications appropriately in order to receive federal funds.

Weaknesses

- Some programs, such as General Office Clerk, had far more students enrolled (30,340 enrolled) than could possibly obtain related jobs upon graduation (2,795 estimated openings).

- The in-house review and program visits revealed that documentation of program improvement based on the first cycle of evaluation was difficult to obtain except in isolated cases.

- The in-house review revealed that improvements were needed in the SEA's MIS if it was to be more fully used for program evaluation

purposes (e.g., enrollment and equipment verification; updating the listing of programs; analysis procedures; operational definitions of program enrollees, completers and leavers; response rates in follow-up studies).

- o Better alignment of evaluation criteria and procedures and SEA objectives, within the four goals, was needed.

The analysis of client views included statistical models to explain their ratings using context and input variables. In terms of explaining processes and products, evaluation models illustrated several interesting findings, summarized below (DVTE, 1987, p. 68).

- o Teacher views about a positive program environment are strongly related to student's functional math and reading test scores and grades but adversely related to poverty. Obviously, the better prepared the students, the more the teacher will perceive administrative support for the program. The greater the school's financial resources, the more the students will be well prepared.

- o Teacher evaluation of VSST is most strongly related to other teacher perceptions about the program, particularly those related to program support. Where teachers perceive adequate support from the administration, they are more likely to view VSST in a positive light.

- o Student evaluation of instruction is strongly related to teacher views of the program. In poorer LEAs, students actually have more positive attitudes toward vocational instruction than in wealthier

LEAs. When teachers are positive about the program, so are the students.

- Student evaluation of support is also related to teacher views as well as student math test scores and student evaluations of instruction. This last relationship is not surprising; student attitudes toward school tend to be one dimensional. It is interesting that students in areas of high unemployment hold their counselors in high regard.

- Student evaluation of job placement is strongly related to their functional reading scores, English grades, teachers' perceptions, and student ratings of instruction. Taken together, these variables explain two-thirds of all variation in student evaluation of job placement. Poverty, functional reading scores, and unemployment are moderately good predictors of student views. Students named vocational teachers as their primary source of job placement help.

- Vocational course grades cannot be predicted easily but are clearly related to student ability and achievement. Unemployment, poverty, and teacher attitudes also enter the equation. The best single predictor, however, seems to be how well the student likes the instructor.

- Employer evaluations of cooperative education students can be predicted from unemployment, math grades, and student evaluation of support as well as poverty, English grades, student evaluation of instruction, and student evaluation of job placement. Since 94 percent of all employers rated cooperative education students

positively, all relationships were rather weak; i.e., there was very little to predict.

The statewide survey of program clients provided six recommendations for improving attainment of statewide goals. Reports from program visits provided several different types of recommendations which LEAs responded to in their action plans. The survey recommendations were to:

1. Determine why male and female students in traditionally male programs feel males and females are treated unequally[4].

2. Improve recruitment of males and females into programs nontraditional for their sex.

3. Improve and increase involvement in program/craft committees.

4. Improve and increase enrollment in vocational student organizations.

5. Reinforce job information and placement services.

6. Follow-up employer evaluations of construction trades graduates.

How has the evaluation changed since the first cycle? It grew in scope, intensity, and complexity as several audiences' expectations for the activity

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[4]Although the survey recommended further study of students' perceptions of unequal treatment, factors such as racial and male/female composition of the respondents' classroom or shop, were not considered. Also, reasons for unequal treatment and perception vs fact in differential treatment were not verified.

were integrated. The data collection and reporting process became more complicated as the SEA and LEAs conducted their respective duties. Consistent with the earlier program evaluation cycle, findings were still strongest in programmatic components under the direct control of the local vocational program. See Table I for a comparison of the two evaluation systems.

One major conclusion the SEA and LEAs drew from their participation in the 1983 evaluation cycle was that there was more information about the LEAs and about strides made in meeting statewide goals and objectives. A second conclusion was that there needed to be a system in the SEA to monitor and facilitate local program improvement efforts. But the SEA's role relative to the LEA needed to be defined and tied to evaluation. There was uncertainty about the degree to which evaluation could influence SEA-imposed sanctions and incentives; LEA funding and evaluation utilization were still independent activities. LEA acceptance of the SEA's evaluation criteria, given the political relationship between the SEA and LEAs, was an also issue.

Section IV describes in detail the utilization factors associated with the 1983 cycle of evaluation. Sections II and III describe the framework and methodology used in generating the findings.

II FRAMEWORK FOR ASSESSING EVALUATION USE

The remainder of this paper discusses factors about the 1983 cycle of evaluations. It uses the framework provided by Cousins and Leithwood (1986) and Franchak (1981) and Adams & Walker (1979) as a basis. These authors have indicated that certain aspects of the evaluation and of the decisionmakers setting can enhance or minimize evaluation utilization. In the case of vocational education in Maryland, there are three phases of evaluation: (1) in-house review, (2) program and school visitations, and; (3) client surveys. Decisionmakers at the state and local level comprise two settings for use of evaluation. A third setting, as required by the 1976 and 1984 federal vocational education legislation, is the State Council for Vocational Education (SCoVE).

Table I

A COMPARISON OF THE FIRST AND SECOND CYCLES OF EVALUATION

1978-1982	1983-1987
o Most LEAs evaluated all their programs within 5-years	o Each LEA evaluated once in 5 yrs.
o 5 Year statewide evaluation process	o 7 Year statewide evaluation and program improvement process
o Audience included LEA and SEA	o Larger audience (LEA, SEA, SCoVE)
o Program improvement purpose	o Multiple purposes, including program improvement
o Census of all programs on-site	o Sample programs on-site
o LEA self-assessment and program visits	o DVTE In-house Review LEA Self-Assessment, school visits and program visits Surveys of teachers, students, graduates, employers
o Quantitative and qualitative methods used	o Quantitative and qualitative methods used
o Process Evaluation: One evaluation question	o Process, Product Evaluation: Five evaluation questions
o LEA-directed, SEA assisted; one set of criteria	o State directed; several criteria; LEA input
o No SEA sanctions	o SEA sanctions possible
o Separate from other data collection and monitoring activities	o Combined with other data collection and monitoring activities
o LEA writes action plan	o LEA writes action plan; SEA monitors
o 13 Questionnaires	o In-house review process and 21 questionnaires
o Annual summative report per LEA, State; descriptive recommendations	o Case studies of in-house review and LEA visits; annual survey reports per LEA and State; descriptive and prescriptive recommendations
o Findings communicated to LEAs in formal report format only	o Findings communicated orally at conferences, and in interview/discussion sessions. Findings communicated in written formal reports, short newsletter articles, and abridged summaries. Findings directed to diverse audiences.

Cousins and Leithwood (1986) surveyed empirical research conducted during the prior 15 years which addressed use of evaluation results. A total of 12 factors were found in the 65 studies of program evaluations in education, mental health and social service they reviewed. Six of the factors related to the evaluation and six related to the policy setting. The factors associated with evaluation were: (1) Evaluation quality, (2) Credibility, (3) Relevance, (4) Communication quality, (5) Finding themselves, and; (6) Timeliness. Factors in the decisionmaking setting were: (1) Information needs, (2) Decision characteristics, (3) Political climate, (4) Competing information, (5) Personal characteristics; and, (6) User commitment and/or receptiveness to evaluation.

Overall use was most evident if the following conditions and were true:

(1) Evaluations appropriately assessed implementation and outcomes were adequate in terms of methodology and intensity (e.g., number of observations made).
(2) The decisions to be made were significant to users and appropriate given the data collected (e.g., citing program strengths and weaknesses).
(3) Findings were consistent with the beliefs and expectations of users.
(4) Users were involved in the evaluation process and had a prior commitment to the benefits of evaluation.
(5) Users considered the data relevant to their problems.
(6) A minimum of information from other sources conflicted with the results of the evaluation.

The authors found that certain factors influenced evaluation utilization in specific ways assuming utilization was defined in three ways. The three ways were: (1) use as decisionmaking about program funding, program objectives, program operation or program management, (2) use as enlightening decisionmakers and providing baseline information about the program, or perceptions about the current vs ideal program; and, (3) use as "potential for future decisionmaking". Other researchers have defined use in similar ways (Braskamp & Brown, 1980; Goldman, 1978; King & Pechman, 1984; Williams and Bank, 1984). In a general way, evaluation utilization is based on: awareness of, acceptance of, and acting on evaluation recommendations. Therefore, in this case study of vocational education, use is defined as: (1) awareness-raising (e.g., use data to inform vocational education's publics); (2) intentional non-use (e.g., review evaluation recommendations but reject them because of realistic limitations such as political climate or limited funds); (3) decisions to make programmatic changes for compliance reasons where proposed response to the recommendation is vague and general; and, (4) decisions to make programmatic changes where the proposed response to the recommendation is specific, clearly laid out showing the decisionmaker's commitment to making changes.

The most desirable use of evaluation for vocational education especially at the local level, is this fourth type of committed use. However, as Cousins and Leithwood (1986) suggest, use is affected by factors of the evaluation and decisionmaker settings.

Franchak (1981) stressed that evaluation implementation and use can be viewed as a problem of innovation implementation. Agencies may vary widely in their willingness to adopt a new evaluation or to use evaluation results. He cited several strategies which can be employed to improve communications so that

agencies can accept these ideas. Researchers like Loucks, Newlove and Hall (1975) have documented the change process, which they found takes 3-5 years and is a process of changing attitudes, knowledge and behaviors of individuals within an agency affected by an innovation, like program evaluation. With an ongoing, stable program like vocational education that has cyclic mandated evaluation activities, one can track how the concept of evaluation and evaluation use evolves and improves as vocational educators routinize these activities.

III - METHODOLOGY

The purpose of this case study was to analyze evaluation uses and impacts based on the Statewide goals as the benchmark. As such, a Discrepancy Analysis (Provus, 1971) was used to determine if the intended benefits from evaluation implementation and utilization took place between 1983-1987. Unintended outcomes of the evaluation were also discussed.

Documents were the sources of information for the case study of evaluation uses in Maryland's vocational education program. These materials included (1) State and local evaluation reports, (2) State and local multi-year plans, (3) LEA action plans developed to record planned changes, (4) SEA action plan monitoring reports; and, (5) Evaluation Task Force meeting minutes, SEA conference materials, letters and communications describing the evaluation results or the utilization. Adams & Walker's (1979) checklist was used as a guide.

Because enough time had not passed for program improvements to occur in all 24 of Maryland's LEAs, only action plans from three of the four LEAs evaluated in 1984 were reviewed (due to SEA staffing problems, action plans from the fourth LEA had not been formally monitored). Each of the three LEAs were from

different regions of the State. One LEA represented a large system (secondary school enrollment of over 38,000) and the others were small (secondary school enrollment of 1,000 and 8,000).

There were important variables to consider in this review of evaluation uses. These are described below:

1. The EVALUATION includes the four phases of an in-house review; LEA self-assessment, and school/program visits; client surveys; and, surveys of graduates and employers. Quantitative and qualitative methods were used.

2. EVALUATION FACTORS are quality, credibility, relevance, communication quality, findings, timeliness.

3. DECISIONMAKERS include staff of SEA, SCoVE and LEAs.

4. DECISIONMAKER FACTORS are information needs, decision characteristics, political climate, competing information, personal characteristics, user commitment and/or receptiveness to evaluation.

5. TYPE OF PLANNED USE based on a 5 point rating scale plans range from 0 to 4. The rating scale is described below:

   4. Real, responsive and specific/discrete actions where staff use findings and recommendations instrumentally or persuasively; they take ownership and responsibility for making changes.

   3. Generally responsive, vague actions made for purposes of complying; ownership and responsibility for making changes are not clearly specified; "fuddling" occurs (e.g., poor or no evidence or date given

for completion, a typical response to evaluation is: "will act as funds become available", or "will do needs assessment").

2. Intentional non-use occurs when a rationale is given for not accepting findings/recommendations (e.g., findings have been disproved by evidence provided after the program visit).

1. Awareness-raising occurs when consideration for potential action is given or findings are used as background information, to inform decisionmaker system or decisionmaker's publics.

0. No plans for use means that no response or recognition of an evaluation finding is made.

6. PROGRAM COMPONENT AFFECTED relates to the 21 program components (see pp. 11-15 for a description of the program components). Other program components which evaluations may affect include: compliance reporting (for SEA and SCoVE), image-building (for SEA, SCoVE and LEAs), and operation within the SEA (e.g., monitoring and assisting LEA action plan implementation) or LEA.

7. PLANS IMPLEMENTED/NOT addresses whether plans were implemented. In some cases, use of evaluations are unplanned, as in use of data for public image-building or responding to State Legislators' spontaneous questions about a particular situation in a local school.

8. REASONS FOR NON-USE describes reasons for intentional or unintentional non-use. For example, intentional non-use can occur if, for political reasons, the decisionmaker requests that the findings are not released to the public. Intentional non-use can also occur if a recommended action cannot be met. One example is if an LEA cannot renovate a school

building to meet state facility standards because local and state funds are no longer available for building modifications. Non-use can also occur because the findings/recommendations are not understood (i.e., do not fit within the State goals and objectives or are statistically too sophisticated for the decisionmaker to interpret prescriptively and use programmatically).

The relative importance of these variables is described in terms of the three audiences for the four-phase vocational education program evaluation. The audiences and the SEA, SCoVE and the LEA.

IV FINDINGS

A. Implementation Factors and the SEA

The SEA made an increased commitment to evaluation in 1983 as compared to 1978. By 1983, evaluation was referenced in the statewide program standards, and in the goals and objectives. Two stated impacts in Maryland and nationwide (Wentling, 1985) for vocational-technical education were that: "Evaluation results will be used to modify programs; and that: "Evaluation should be an integral part of vocational program activities and services." For example, an historical review of the annual program of work between 1982-1988 (i.e., annual division-wide objectives) suggested that the SEA is more actively promoting evaluation. Evaluation implementation was a division-wide priority for the first two of five years. Beginning in 1983, all 50 of the DVTE staff were involved in one or more phases of the evaluation each year. Approximately $150,000 were spent for the State's five-year

evaluation, which only covered printing and data analysis. Therefore, the SEA had committed many resources to evaluation.

The SEA's goals for the second cycle of evaluations included four goals of implementation and four goals of evaluation utilization. The implementation concerns were to: (1) make evaluative use of MIS data, (2) merge other monitoring and evaluation activities with the federally mandated evaluation, (3) include an evaluation responsive to the federal mandate, and (4) become more involved in the local evaluations. The SEA evaluation utilization concerns were to: (1) become more directly involved in local program improvement activities resulting from evaluations, (2) institutionalize a way of monitoring and documenting program improvements, (3) more clearly direct its own operation in light of LEA needs revealed in evaluation; and, (4) have information useful for responding to questions posed by the State Legislature.

The implementation concerns were met by the evaluation but the resulting system was difficult to manage. Extraction of information was difficult because the findings for any given purpose were interwoven in a myriad of questionnaires and reports. Timeliness also suffered.

For example, one of the SEA's mandated reporting activities was submission of an annual OCR report describing results of program and school monitoring visits and LEA corrective actions. The U.S. Office of Civil Rights required a shorter time span between the SEA's writing of the program visit reports and the LEA's performance of the OCR corrective actions described in their written action plans. The comprehensive LEA site visit report, covering OCR as well as other aspects, typically took 3-6 months for SEA staff to write. Action plans usually took the LEA another 3-6 months to finalize and even longer to

implement. This time delay caused SEA staff responsible for OCR federal reporting to modify their reporting format.

Another problem, expressed by SEA staff was that trying to do all monitoring activities at one time jeopardized the quality and intensity of each separate monitory function. For example, tagging of all federally and state purchased equipment associated with a visited program could not possibly be checked in the amount of time allocated. Sometimes "spot checks" of a sample of items was also difficult, especially if the tagged equipment had been dismantled, moved and stored, or disposed of, without a written record of the action. Finally, lack of a single, "final" evaluation report for the state or each LEA was a source of confusion and frustration for the SEA.

Between 1985 and 1986, selected SEA staff met periodically to discuss the evaluation. SEA staff agreed that the in-house review was a good activity because it caused SEA staff to come together as a group to share data and information about a particular LEA. This was an awareness-raising activity. Similarly, descriptive survey data was appreciated because it provided important background information useful for informing the SEA and it's publics and for image-building. However, survey findings from statistical models was difficult to interpret and so was never used.

The validity of the program visitation process was criticized because every program in every school could not be visited (e.g., auto mechanics programs in two schools are not the same, even if the same curriculum is used) and the short time spent evaluating each program (about 2-4 hours). Also, the staffing patterns for each LEA visit varied somewhat, which modified how each program visit was implemented, potentially affecting the validity of the findings. Evaluation findings and program improvement were still not well

integrated into the LEA planning process. SEA staff mentioned the need to tie evaluation to planning, on the one hand, and local to state planning efforts on the other. However, they stressed that local and state program contexts vary somewhat and that LEAs vary in the degree to which they accepted statewide goals and objectives and statewide program standards.

Did the SEA fulfill the goals they had for evaluation utilization? The answer to this question is probably no. Realizing this has caused the SEA to begin focusing on utilization per se during the 1987-1988 school year. For example, select SEA staff have been given assignments in their annual work plan to monitor LEA action plans or to assist in action plan implementation. Documentation of these SEA activities is also being required. Clearly, one unanticipated evaluation outcome is that the SEA is learning that evaluation utilization is not a natural outcome of evaluation implementation. Utilization requires commitment and role clarification.

B. Use Factors and the SEA

Since 1987, the SEA has begun using evaluation in several ways, particularly to direct its own operation relative to the LEAs, and to inform its publics about the status of vocational education's client groups. Results from program and school visits have been particularly influential of DVTE operations. Their 1987 plan of work included several initiatives which were a direct result of the in-house reviews and program/school visitation. Evaluation has also been used for compliance-related federal reporting in accordance with the Perkins Act (DVTE, 1986) and the Office of Civil Rights (DVTE 1987a). In 1986 and 1987, SEA staff made presentations before the Maryland Board of Education, other divisions/offices within the SEA, LEA directors, vocational teachers, the State legislature, and LEA advisory

groups. Data obtained from the surveys were incorporated in these presentations, as well as in descriptive reports, pamphlets, newsletters and audio-visual presentations about Maryland's vocational education program.

The SEA also did not use certain evaluation findings. Rational decisions to not use evaluation findings and recommendations from LEA visits or surveys were associated with three factors: (1) no longer having funds for making the activity a priority (i.e., major renovation of facilities to meet state standards and specifications; improvement of career guidance programs); (2) the activity is administered outside the SEA's Division of Vocational-Technical Education (DVTE), as in the case of career guidance services; and, (3) the recommendation conflicts with other statewide program goals (i.e., reducing enrollments in certain programs to better match the State's labor market needs). A total of five recommendations, which primarily came from the surveys, were not acknowledged at all. Four of these recommendations were not acknowledged because the SEA was less concerned with them and anticipated that the LEAs would address them in their action plans. The fifth set of findings, dealing with statistically sophisticated modeling of survey data, provided no specific prescriptive programmatic action, and so was ignored. See Tables 2 and 3, for a summary of SEA use and non-use of evaluation.

TABLE 2
PLANNED UTILIZATION OF EVALUATION BY THE SEA

		SEA GOAL	TYPE USE
	Evaluation Use		
	The 1987-88 SEA workplan indicated that staff would respond to results of the in-house review and LEA visits. They would:		
1.	Develop and disseminate media materials for use by LEAs	II	4
2.	Coordinate the development of articulation agreements between vocational-technical education in LEAs and community colleges.	II	4
3.	Develop and pilot in 3 LEAs, where needs were identified by the evaluation, strategies to implement the CBVE instructional model.	II	4
4.	Implement support programs for non-traditional students.	I	4
5.	Develop & implement an interactive computer data-based system of student enrollment, graduate completion & equipment inventory for staff access & maintenance.	IV	4
6.	Promote equal access & opportunity.	I	3
7.	Monitor LEA action plans.	IV	4
8.	Ensure that all LEA program proposals are up-to-date (i.e., meet statewide standards)	IV,II	3
9.	Provide technical assistance to monitor accomplishment of action plans.	IV	3
10.	Maintain & refine MIS.	IV	3
11.	Fulfill federal monitoring & evaluation requirements.	IV	3

[1]Statewide goals are: I-Equal Access, II-Quality Programs; III-Support Services; and, IV- Accountability & Administration. (See Appendix D)
[2]Types of use include: 0- non-awareness/non-use; 1- awareness; 2- rational non-use; 3- compliance; and, 4-responsive use.

TABLE 3

SEA's UNPLANNED UTILIZATION & NON-UTILIZATION OF EVALUATION

Evaluation Use/Non-use The SEA:	SEA[1] GOAL	TYPE[2] USE
1. Did not emphasize major facilities renovations, cited in LEA visits, as a statewide priority (Very Little SEA funds for facilities renovations)	II	2
2. Did not emphasize improvements to career guidance services, cited in LEA visits, as a statewide priority (very little SEA funds; Guidance not directly administered by DVTE).	III	2
3. Did not encourage LEAs to decrease enrollment in programs such as General Office Clerk, which surveys reported had more students enrolled than could possibly obtain related jobs. (Recommendation conflicts with goal of increasing enrollment).	IV	2
4. Described survey findings in: a. newsletters to local vocational directors. b. public relations audio-visual materials c. presentations to state school board & local administrative and instructional staff, d. mailings to other states' SEAs, other Maryland public agencies, other divisions within SEA.	IV	1
5. Used data from visits & surveys to answer request for information, such as from the state legislature.	IV	1
6. Did not emphasize improving program committees, cited in LEA visits & surveys, as a state priority. (An LEA concern).	II	0
7. Did not emphasize improving VSOs, cited in LEA visits & surveys, as a state priority. (An LEA concern)	II	0
8. Did not scrutinize why employers rated construction trades graduates & occupational home economics coop. students poorly. (An LEA concern)	II	0
9. Did not emphasize as State priorities job information, job placement and follow-up services, cited in LEA visits & surveys. (An LEA concern)	III	0
10. Did not use surveys' statistical modeling data for policy planning. (Data did not provide specific recommendations)	IV	0

[1] Statewide goals are: I- Equal Access; II- Quality Programs; III - Support Services; and, IV- Accountability & Administration. (See Appendix D)

[2] Types of use include 0- non-awareness/non-use; 1- awareness; 2-rational non-use; 3-compliance use; and, 4-responsive use.

C. Use Factors and SCoVE

Evaluation has been a primary mechanism for SCoVE's involvement with the SEA since 1983. The State Council for Vocational-Education (SCoVE) has, like the SEA, been very committed to program evaluation, partially because of requirements in the Perkins Act of 1984. The Perkins Act required SCoVE's evaluation sub-committee to monitor vocational education program evaluations; and, also to compare the delivery systems of vocational education and the Job Training Partnership Act (JTPA). SCoVE's interest and involvement in evaluation actually began earlier than 1983, with participation in the Evaluation Task Force in 1978; it has continued into the present, as SCoVE has been instrumental in designing the 1988 evaluation system. Between 1983-1987, members of SCoVE participated in each program/school visit as observers. The SCoVE evaluation sub-committee annually discussed their observations and made recommendations to the SEA about management of the visits. SCoVE regularly received and reviewed all LEA case studies, LEA and SEA survey reports, and LEA action plans.

A recent interview with SCoVE's staff and review of SCoVE's annual report (Maryland State Council on Vocational-Technical Education, 1987) revealed that SCoVE had used evaluation findings in many ways. SCoVE resembles the SEA in use and non-use of evaluation. Like the SEA, SCoVE has used results from program and school visits to direct it's own activities. Findings from the survey reports were used to inform SCoVE's publics about vocational education. These publics included the State Governor, State Legislature, SEA and LEA superintendents, State's Apprenticeship and Training Council, local directors of vocational education, Local Advisory Councils of Vocational-Technical Education (LACVEs), American Vocational Association, and the National

Association of State Councils. For example, SCoVE's evaluation activities were described in their newsletter, VOCTECH NEWS. Evaluation had also been used for compliance-related federal reporting in accordance with the Perkins Act. SCoVE's report to the federal government (Maryland State Council on Vocational-Technical Education, 1987, p. 42) stated that:

> "Information included in the reports of findings prepared by the State Department of Education subsequent to each evaluation have been particularly helpful to the State Council on Vocational Technical Education as a means of substantiating information and data obtained from other sources and as an extremely valuable source of candid information on existing conditions in the school systems throughout the State."

The State Council (i.e., SCoVE) also did not use certain evaluation findings. Rational decisions to not use eight evaluation findings and recommendations from LEA visits or surveys were associated with two factors: (1) the activity is a concern of the SEA or LEA's vocational program administrator and not a SCoVE priority; and, (2) the recommendation conflicts with other Statewide program goals. A total of three findings described in LEA case studies or surveys were not acknowledged. One of the three unacknowledged recommendations dealing with sophisticated modeling of survey data, provided no specific prescriptive programmatic action, so was ignored. The other two unacknowledged recommendations (career information; job placement and follow-up) should have probably been addressed by SCoVE. Table 4 summarizes SCoVE's use and non-use of evaluation.

TABLE 4

SCOVE's UTILIZATION & NON-UTILIZATION OF EVALUATION

Evaluation Use/Nonuse Based on LEA case studies, SCoVE:	SEA[1] Goal	TYPE[2] Use
1. Recommended to the SEA to continue program and school visits as a part of the 1988 evaluation cycle.	IV	4
2. Recommended to the SEA to strengthen local program committees (SCoVE recently published and distributed guidelines for organizing and maintaining the program committees).	II	4
3. Recommended to the SEA to encourage the establishment and/or expansion of VSOs as an integral part of vocation programs.	II	4
4. Met with four LEA vocational directors to discuss the results of program evaluations and actions being taken to correct deficiencies noted in evaluation reports.	IV	4
5. Sent letters to all LEA superintendents (n=17) soliciting their support for VSOs (support was promised by some superintendents)	II	4
6. Supported SEA's legislative request for increasing state aid of vocational education (e.g., local equipment needs) from $2.9 to $3.9 million. (request was granted)	IV, II	4
7. Attended meeting of a large metropolitan LEA's LACVE and discussed the LEA's evaluation findings and action plan; met with the LEA's superintendent.	IV	4
8. Fulfilled federal monitoring and evaluation requirements.	IV	3
9. Did not emphasize in-house review, case study of survey findings which are SEA or LEA concerns, they were:		
a. Promoting equal access & support of non-traditional students.	I	2
b. Promotion of vocational programs.	II	2
c. Promotion of program articulation	II	2
d. Strengthening CBVE implementation	II	2
e. Facilities renovations	II	2
f. Assessing why employers rated construction trades graduate and occupational home economics coop. students poorly.	II	2
g. Updating program proposals; meeting Statewide standards.	IV, II	2
10. Did not emphasize decreasing enrollment in certain programs to meet state labor market needs (Recommendation conflicts with goal of increasing enrollment).	IV	2
11. Sometimes used LEA case studies to verify the merits of candidates for SCoVE's annual "outstanding program award."	II	1
12. Used LEA case studies & surveys to answer requests for information from the State Legislature.	IV	1
13. Described survey findings in:		
a. Pamphlet for LACVEs developed by SCoVE.		
b. Presentations to LACVEs, and other publics.	IV	1
14. Did not use case study findings to promote improvement of career guidance (The findings could have supported initiatives from a state agency to improve these services).	III	0
15. Did not use case study and survey findings to promote improvement of job information, job placement and follow-up services.	III	0
16. Did not encourage use of surveys' statistical modeling for policy planning. (Data did not provide specific recommendations).	IV	0

[1] Statewide goals are: I- Equal Access: II- Quality Programs: III - Support Services: and, IV- Accountability & Administration. (See Appendix D)

[2] Types of use include 0- non-awareness/non-use: 1- awareness: 2-rational non-use: 3-compliance use; and, 4- responsive use.

D. Implementation Factors and the LEAs

In 1983, the LEA directors in the Evaluation Task Force expressed interest in modifying the evaluation system. They desired that program outcomes be incorporated into evaluation. They also desired that the LEA self-assessment/on-site process evaluation be decreased in intensity by focusing on a sample of programs and schools once every five years, rather than a census of all programs within five years. The 1983 cycle of evaluation met these requirements. Survey data fulfilled the request for program outcomes. The number of program/school visits were decreased.

In 1986 LEA representatives on the Evaluation Task Force met and described strengths and weaknesses of the evaluation process. On the positive side, LEA representatives saw the value of a four-phased evaluation that included: DVTE in-house review, LEA self-assessments followed by SEA program/school visits, LEA-directed surveys of clients, and SEA-directed surveys of graduates and their employers. They liked the dialogue between themselves and the SEA associated with writing in-house review reports and reports from visitation. They believed that evaluation allowed the SEA's staff to become more involved with, and informed about their programs than other SEA activities. The surveys provided interesting information about the overall status of their program.

There were criticisms of evaluation. Many of the same criticisms were also raised by the SEA's staff. Both LEA and SEA staff questioned the validity of sampling programs and schools. Both groups criticized the staffing patterns of visitation teams and problems in how the visits were carried out in different LEAs. The number of questionnaires and questions asked werecomprehensive but cumbersome. There was perceived redundancy in the

questionnaires. There was also agreement that timelines for planning the self-assessments and visits were too short. The LEA case studies, surveys, and action plans took too long to write. Also, LEAs experienced difficulties in responding to recommendations from surveys when writing their action plans.

LEA representatives raised questions which related to the political context of evaluation and the SEA-LEA relationship: (1) whether the questions in the self-assessment process were the concern of the SEA or LEA, (2) whether the SEA should distribute evaluation reports to local superintendents and the impact of this on the LEA's vocational program; and, (3) the SEA's need to start monitoring action plan implementation.

Did the LEA's goals for implementing the 1983 evaluation get achieved? The answer is yes. However, they have concluded that program improvement plans require process and outcomes information. Program outcomes, described in surveys were difficult to use as a basis of program improvement. Sampling programs proved to be an unacceptable strategy to address program operation. Politically speaking, LEAs began addressing whether they accepted SEA evaluation criteria and involvement in LEA programming. LEAs varied in the degree to which they accepted the Statewide goals and objectives, and Statewide program standards. Their position on these evaluation criteria was reflected in their action plans.

E. Use Factors and the LEAs

The evaluation process required that LEAs respond to evaluation finding and recommendations in written action plans (see Appendix C for a blank action plan). LEAs typically perceived implementing actions as their responsibility. For example, the column marked "DVTE" on the action plan, which describes desired SEA assistance in completing the action, was generally not checked off

in the 16 action plans written to date. Therefore, LEAs have taken ownership of their planned program improvements. Informal conversations with a few LEA vocational administrators indicated that soon after receiving LEA survey reports they used them to inform their publics--teachers, school administrators, the LEA superintendent, the local school board, and LACVE. Case studies were shared with the appropriate program supervisors, teachers, program committees, and LACVE members who typically became involved in the development of action plans. One LEA vocational administrator used the survey findings as a public relations tool. She asked the SEA to send a formal letter describing her LEA's positive findings. The information was incorporated into a handsome greeting card signed by the LACVE and distributed to all vocational education teachers and their principals.

In a few instances, programs were dropped partially or totally because of evaluation. More frequently, LEAs tended to restructure programs to better match enrollment patterns and/or needed curriculum modifications. There had been a few instances of LEAs using evaluation findings as justification for requesting JTPA or Section 504, handicapped funds to improve program services or modify facilities. In one large urban school district the findings from the evaluation were combined with evaluations conducted in the last 20 years to support needed changes involving the structure of the entire vocational education program, and its administration. Finally, evaluation was used for compliance reasons; the SEA required that LEAs report evaluation utilization efforts in their annual request for funds (i.e., the local application).

The remainder of the discussion of LEA utilization describes action plans and accomplishments of three LEAs the SEA evaluated in 1984 and monitored in 1986 or 1987. The action plans were written in response to findings from program/school visits. Tables 5 to 8 describe specific actions planned in

1984 or 1985 and accomplished by 1986 or 1987 in 3 LEAs in response to each of the four Statewide goals for vocational education. The actions in these Tables are also coded in terms of the type of use.

Table 5 indicates that a total of 17 different actions were planned in response to Goal I - Equal Access. These actions reflect compliance-related use because response to Goal I address compliance with OCR regulations. The LEAs have completed or shown substantial progress in accomplishing six planned actions:

- Annual program notification (3 LEAs)
- Equity statement in publications (3 LEAs)
- Equitable programs admissions (2 LEAs)
- Minor modifications to facilities to make them accessible to handicapped and/or non-traditional students (2 LEAs)
- Equitable student interest assessment (1 LEA)
- Better coordination of vocational education and special education under the same director (1 LEA)

Table 6 describes actions planned and accomplished in response to Goal II - Quality Programs. Actions in response to Goal II included Type of Use code 4 (responsive), code 3 (compliance), code 2 (rational non-use) and code 1 (awareness). A total of 22 different actions were planned by one or more LEAs in response to Goal 2. Plans that involved using findings as general information (Use code 1) or to purposefully reject recommendations (Use code 2) require no specific completion because no decisions about program funding, operation or management are necessarily being made. A total of 5 different responses, involving 1 or 2 LEAs, were coded 1 or 2. The remaining 17 different plans were either responsive (code 4) or compliance-related (Use

code 3). The LEAs have completed or shown substantial progress in accomplishing five planned actions:

- o Improve program goals and objectives by restructuring the programs (2 LEAs)
- o Improve Cooperative Education by developing a procedures handbook (2 LEAs)
- o Establish craft committee (1 LEA)
- o Start VSOs or recruit more student for existing VSOs (1 LEA)
- o Develop new tests for a better student assessment system (1 LEA)

Table 7 describes actions planned and accomplished in response to Goal III-Support Services. The actions were rational non-use (code 2), compliance (code 3), and responsive (code 1). A total of 14 different actions were planned by one or more LEAs in response to Goal 3. Of these 14, 7 different responses reflected rational non-use (i.e., rejection of recommendations) so that only 7 others reflected decisions to act on evaluation findings. The LEAs have completed or shown substantial progress in accomplishing three planned actions:

- o Improve the operation of VSST (1 LEA)
- o Develop a system-wide student interest testing program (1 LEA)
- o Revised guidance program (1 LEA)

Table 8 describes the six actions planned and accomplished in response to Goal IV - Accountability and Administration. Actions reflected responsive (code 4) or compliance--related (code 4) uses of evaluation. Substantial progress was made in one planned action:

- o Tag and inventory equipment (2 LEAs)

None of the action plans mentioned any of the recommendations in the specific LEA's survey report or the State survey report. Therefore, unless findings/recommendations from the LEA case study and survey report were the same, the survey data was not used in a compliance (code 3) or responsive (code 4) manner.

TABLE 5

PLANNED UTILIZATION OF EVALUATION DESCRIBED IN THREE LEAs' ACTION PLANS; GOAL I - EQUAL ACCESS[1]

Action	No. of LEAs Planned	No. of LEAs Completed/ progress made
1. Annual program notification	3	3
2. Notification - non-English language	1	0
3. Equity statement in publications	3	3
4. Equity statement in coop. ed. agreement	2	1
5. Coordinate Voc. Ed. & Special Ed.		
a. Same director	1	1
b. Voc. staff involved in IEP/ARD	2	0
6. Equitable program admissions	2	2
7. Increase non-traditional enrollments	1	0
8. Facilities access by handicapped and/or non-traditional students		
a. Minor modifications	2	2
b. Major modifications (costly)	2	0
9. Equity goal for guidance program	1	1
10. Non-biased guidance materials	1	0
11. Equitable student interest assessment	1	1
12. Improve enrollment by Limited English Proficient (LEP) students	1	0
13. LACVE membership more equitable	2	1
14. Modify staff employment application	1	1
15. Increase staff equity awareness	1	0
16. Eliminate biased instructional materials	3	1
17. Adapt learning materials for use by special students.	1	0

[1]Involves LEAs evaluated in 1984. All actions in response to Goal I relate to compliance with OCR requirements.

TABLE 6
PLANNED UTILIZATION OF EVALUATION DESCRIBED IN THREE LEAS' ACTION PLANS; GOAL II - QUALITY PROGRAMS[1]

Action	Type[2] Use	No. of LEAs Planned	No. of LEAs Completed/ progress made
1. Improve CBVE use			
a. Teacher inservice	4	2	1
b. Administrative support	4	1	0
2. Improve program goals & objectives			
a. Restructure programs	4	2	2
b. Refocus goals & objectives	4	2	0
3. Wider use of instructional materials & methods			
a. Teacher inservice about special students	4	2	1
b. More materials; update materials	4	1	0
4. Better student assessment system			
a. Teacher inservice	4	1	0
b. Develop tests	4	1	1
5. Update equipment & facilities			
a. Not do; program approved before standards	2	2	--
b. Funds requested "as available"	3	3	0
c. Move program			
6. Program committees improved			
a. Assess need	1	1	---
b. Reactivate prior ones	4	2	1
c. Establish	4	1	1
7. Improve VSOs			
a. Study this	1	1	--
b. Start them or recruit students	4	1	1
c. Already believe VSO integrated into instruction	2	1	--
8. Articulate more programs	3	1	0
9. Improve Coop. Ed.			
a. Develop procedures, handbook	4	2	2
10. Program promotion & use of community resources			
a. Examine need	1	1	---
b. Write plan	4	2	0
11. Update vocational program philosophy	4	2	1

[1]Involves LEAs evaluated in 1983.
[2]Types of use include 1- awareness; 2- rational non-use; 3- compliance use; and, 4- responsive use.

TABLE 7
PLANNED UTILIZATION OF EVALUATION DESCRIBED IN THREE LEAS' ACTION PLANS; GOAL III- SUPPORT SERVICES[1]

Action	Type[2] Use	No. of LEAs Planned	No. of LEAs Completed/ progress made
1. Establish VSST; improve operation			
a. Improved operation	4	1	1
b. No need, is already being done	2	1	--
c. Does not want to establish one	2	1	--
2. Recruitment plan			
a. All students	4	1	0
b. No funds to recruit special students	2	1	--
c. Special students can't achieve in certain programs	2	1	--
3. Systemwide student interest testing	4	1	1
4. Revised guidance handbook, inservice about guidance program	4	1	1
5. Improve counselor link between schools and feeder schools	3	1	0
6. Reduced counselor/student rates			
a. made request	3	1	0
7. More secretarial support	4	2	0
8. Systemwide job placement program			
a. Have services at vocational center	2	1	--
9. Follow-up system			
a. Use state's system instead	2	1	--
b. Do for vocational center only	2	1	--

[1]Involves LEAs evaluated in 1984.
[2]Types of use include 1- awareness; 2- rational non-use; 3-compliance use; and, 4-responsive use.

TABLE 8
PLANNED UTILIZATION OF EVALUATION DESCRIBED IN
THREE LEAS' ACTION PLANS; GOAL IV - ACCOUNTABILITY
& ADMINISTRATION[1]

Action	Type[2] Use	No. of LEAs Planned	No. of LEAs Completed/ progress made
1. Tag and inventory equipment	3	2	2
2. Reflect action plans in 5 year plan	4	1	0
3. Support CBVE	4	1	1
4. Write Vocational Philosophy	3	1	1
5. Update proposals	3	2	1
6. Establish a regular staff development program	4	1	1

[1]Involves LEAs evaluated in 1984
[2]Types of use include 1- awareness; 2- rational non-use; 3- compliance use; and, 4- responsive use.

The review of action plans suggests that LEAs acknowledged major findings from program/school visits, but not from survey reports. Based on the number of different actions planned, LEAs were primarily concerned with complying with (code 3), or responding to (code 4) Goal II - Quality Programs. However, based on the number of accomplishments, LEAs were most successful in accomplishing activities under Goal I. The lack of successful accomplishment of plans may reflect the need for more time. Two or three years may not be sufficient time to make changes in program operation, especially if funds are needed. LEAs were least responsive to Goal III because 50% of the 14 different recommendations/findings were responded to by rejection (code 2).

The analysis of action plans is consistent with findings from the last two cycles of evaluations. Program strengths lie in programmatic components under the direct control of the local vocational director; most of these are described in Goal II. More actions were planned in response to Goal II. Program weaknesses lie in programmatic components not under the direct control of the local program: job placement services, vocational guidance, program promotion or use of community resources, and program committees.

The 50% rejection of findings/recommendations under Goal III may also reflect LEA disagreement with or inability to address the State's objectives--VSST, student recruitment, system-wide job placement program, system-wide follow-up of graduates and other objectives. For example, one LEA is "examining the need for" establishing program committees, establishing or promoting VSOs and having formalized program promotion plans (Goal II activities). This response suggests that the State standards are still being scrutinized and have not been fully accepted as evaluation criteria. Another reason for rejection of findings/recommendations (i.e., code 2-rational non-use), particularly with

Goal II and III activities, was based on lack of funds (e.g., student recruitment program; major renovations to facilities to meet program standards or accessibility standards).

F. Use Factors and the Statewide Goals

Findings from this review of action plans need to be verified by reviewing the remaining 21 LEA plans. Also, as LEAs have more time to implement their actions, and the SEA periodically monitors them, it will be possible to learn which of several factors temporarily or inherently preclude use of evaluation findings associated with each of the Statewide goals. By periodic monitoring of action plans, one can answer how evaluation has improved local programs and how long it takes to make the changes.

Other factors which may influence whether programs are improved are: (1) SEA's system of allocating funds, (2) SEA's (internal) program operation, (3) SEA's management of LEAs and, (4) SEA objectives. If SEA funds were somehow tied to evaluation findings, as in the case of providing financial incentives to address needs through earmarked grants, then evaluations might have a more direct impact on program improvement. One example of operations the SEA changed was already described; the SEA's 1987-1988 plan of work includes activities under Goals I, II and IV that were evaluated as needing improvement between 1984-1987. These activities influence how LEAs are managed. Finally, the SEA may want to reconsider the goals and objectives, particularly the activities under Goal III which are managed outside the SEA and LEAs' Division of Vocational-Technical Education. It is interesting that for the SEA, SCoVE and LEAs, the least use of evaluation occurred with Goal III activities.

Any or all of these major changes in the State's vocational education delivery system need to be conducted with careful consideration of the political

context of education. In Maryland education is cooperatively planned and managed between the SEA and a consensus of LEAs. Vocational program evaluation is no exception and must also be cooperatively planned and managed to show impact.

V DISCUSSION AND CONCLUSIONS

A. Impact of the 1983-1987 Evaluation

The second five-year cycle of evaluations, which took place from 1983-1987, grew in scope, intensity and complexity as the expectations of the SEA, SCoVE and LEAs were integrated. For the first time, there was valuable "case study" information available to all three audiences. The participants valued the dialogue which took place between the SEA and LEAs as the in-house review and program/school visitation "case study" were written. However, the data collection and reporting process also became more complicated as the SEA and LEAs conducted their respective duties. Problems associated with program/school visits were cited by the SEA and LEAs: validity of findings, timelines for implementation, timeliness of reported findings, and credibility of the staff assigned.

Goals for the evaluation were set by the Evaluation Task Force whose membership included SEA, SCoVE and LEA staff. The goals for evaluation implementation were met but goals for utilization of evaluation findings for planning and making programmatic changes were not met between 1983-1987. There were several reasons that program improvements were not made. For the SEA, SCoVE and the LEAs, time was a factor; some changes take more than two or

three years. The findings were a factor; survey findings were not prescriptive and program/ school visit were specific and could not be generalized to those not visited. Limited financial resources precluded making major facilities modifications. Recommendations involving program components not directly supervised within the SEA or LEA vocational program were difficult to respond to adequately or in a timely manner. And finally, evaluation criteria and/or recommendations were sometimes in conflict with other program goals. For the SEA, the objective of increasing enrollment sometimes conflicted with the objective of meeting the needs of the State's labor market. For LEAs, some program component in the evaluated statewide vocational program model were in conflict with local priorities.

On the positive side, all three groups have begun doing their part to improve vocational programs based on program evaluations. LEAs have taken ownership for improving their programs; the SEA began making staff assignments to monitor action plan implementation and provide technical assistance. The State Council (i.e., SCoVE) began lobbying LEA superintendents and others to support program modifications in their jurisdictions. One unintended impact of the second cycle of evaluations was that Maryland's vocational education community realized that program improvements are <u>not</u> a natural outgrowth of conducting an evaluation. Improvement takes commitment, planning and role clarification.

A second unintended outcome of the evaluation was that all three groups became more well-informed about the status of vocational education in meeting its goals and in serving its clients. This information has proven invaluable for informing vocational education's various publics at the national, state, and local levels. Information for positive image-building for vocational

education came primarily from survey data. Finally, the evaluation allowed Maryland's vocational educators to comply with federal and state reporting requirements.

Cousins & Leithwood's (1986, p29) extensive study of uses of evaluation yielded six major conclusions. Evaluations were useful if the following conditions existed:

1. Users were involved in the evaluation process and had a prior commitment to the benefits of evaluation.

2. Findings were consistent with beliefs and expectations.

3. Evaluations appropriately assessed implementation and outcomes and were adequate in terms of methodology and intensity.

4. Users considered data relevant to their problems.

5. A minimum of information from other sources conflicted with the results of the evaluation.

6. Decisions (action) made were significant to users and appropriate given the data collected.

Similar conclusions could be made in this case study of evaluation in Maryland. However, user commitment has been the most important influence since 1979, and again in 1983, with the continued involvement of the Evaluation Task Force. Because evaluation must occur in cycles for the

vocational education system, a relatively stable and on-going program, user commitment is very important if evaluation is to change as user needs change.

B. Recommendations for the Future

From a historical perspective, the evolution of evaluation has resembled the evolution of any innovation. The first evaluation cycle allowed LEAs to familiarize themselves with the concept of evaluation, evaluation methodology and uniform evaluation criteria. The 1983-1987 cycle allowed the SEA and SCoVE redefined their roles in evaluation. The findings from this case study of evaluation in Maryland suggest that important issues for the 1988 evaluation cycle are: the facilitation, monitoring and documenting of evaluation utilization and SEA-LEA role differentiation in these activities. The SEA will be monitoring action plans and may wish to assess how the factors of time, type of findings/recommendations, funding priorities, type of program component, and conflicting local goals influence whether actions become implemented. To facilitate change, the SEA may want to consider modifying the goals and objectives in terms of these factors, or ear mark funds to facilitate implementation of the more complex program improvement plans. Finally, evaluation criteria may be modified so that the cycle three evaluation findings are easier to use for program improvements. Given the State's political context, LEA participation in these decisions would also facilitate change.

In actuality, the Evaluation Task Force has continued providing a forum for the SEA, LEAs and SCoVE to discuss evaluation and evaluation utilization. Based on their input, the third cycle of evaluations, will include the same four evaluation phases but they will be reduced in scope. The new evaluation

system will address implementation difficulties experienced in the second cycle. New emphases are being placed on program components which had been rated as weak during the first and second evaluation cycles, and new emphasis is being placed on obtaining specific information about student skills.

In 1986-1987, the Evaluation Task Force met ten times to discuss and plan evaluation. The Task Force agreed to continue to use evaluation as a means to improve vocational education programs, activities and services. With that goal as the premise, the group focused on what the new system would include. They recommended that the four-phased evaluation should begin with LEA collection of process and product data. Year two would be the in-house review and year three, the program/school visit.

Several of the surveys were viewed as important: student surveys, surveys of graduates, and surveys of employers of graduates or cooperative education students. In addition, a new type of survey, a Graduate Employability Profile, was recommended to assess skills accomplished by graduates of a particular program (e.g., survey form for a plumbing student would differ from one used for a carpentry student). One of the 75 different statewide Employability Profiles would be completed for each program graduate by their respective instructor.

The new evaluation should allow LEAs to collect self-assessment data on each vocational program within the LEA. The Task Force agreed that the LEA derives benefits from self study that often equal or exceed information acquired from a program visit. As a part of the self-assessment, LEAs wanted to look at LACVE effectiveness, program committee effectiveness, and the level of articulation between the secondary and postsecondary vocational programs.

The in-house review of an LEA's total vocational program conducted by SEA staff was strongly supported. This process uses enrollment data for each program over 5 years and provides trends. Also, SEA program staff give insights about the LEAs relative to each staff members area of expertise. The in-house review provides a comprehensive picture of the strengths and weaknesses of programs, activities and services. LEA information from self-assessment and client surveys could be incorporated in this phase of evaluation.

SEA visits to a sample of LEA programs should be continued but programs should be selected randomly. It was strongly recommended that the program review team have in-depth technical knowledge of the area to be reviewed (e.g., plumbers, either teachers in the field and/or individuals working in the field, participate in the plumbing program visit).

The new evaluation should integrate OCR monitoring with program/school visits. However, elements which the previous review found to be redundant or obviously in compliance should be eliminated. Separate OCR instrumentation and review teams should be used.

The new evaluation should have fewer questionnaires; the task force recommended 12 instead of 21. These are:

1. LACVE Questionnaire
2. LEA Administrator Questionnaire
3. Program Questionnaire
4. Guidance Questionnaire
5. VSST Questionnaire

6. Program Committee Questionnaire
7. OCR Compliance Questionnaire
8. Occupational Student Survey
9. Survey of Employers of Cooperative Education Students
10. Graduate Survey
11. Survey of Employers of Graduates
12. Graduate Employability Profile

Program components addressed by these questionnaires include client views; and, LACVE support, program committee support, program promotion, staff, facilities, equipment, implementation of CBVE, vocational student organizations, student recruitment, guidance, support of special students, and program management. Therefore, many of the same program components considered important in 1979 and 1983 will be important in 1988.

The SEA is supporting the LEAs in evaluation. Several activities are in the SEA's 1987-1988 work plan to support the development of the third evaluation cycle. These include the following:

- Pilot an accountability process for vocational programs, activities and services; include employability profiles.

- Finalize the revised graduate follow-up system.

- Computerize the local application; include this in the in-house review.

- Pilot the revised program evaluation in-house and program visitation process in at least two LEAs.

Another SEA initiative being considered is computerizing the 1984-1987 evaluation action plans and analyzing them to form the basis of a statewide needs assessment process for use in determining statewide priorities for 1988-1990. Therefore, commitment to evaluation by the LEAs and SEA is continuing as they begin the third cycle of evaluations.

Appendices

A - Evaluation Specifications in the 1976 Federal Vocational Education Regulations required of the State Board.

B - Evaluation Specifications in the 1984 Federal Vocational Regulations required of the State Board.

C - LEA Action Plan Format.

D - The Mission, Goals and Objectives of Vocational-Technical Education in Maryland.

APPENDIX A

EVALUATION SPECIFICATIONS IN THE 1976 FEDERAL VOCATIONAL EDUCATION REGULATIONS REQUIRED OF THE STATE BOARD[1]

The State Board shall, during the five-year period of the State Plan, evaluate in quantitative terms the effectiveness of each formally organized program or project supported by Federal, State, and local funds. These evaluations shall be in terms of:

(a) Planning and operational processes, such as:

(1) Quality and availability of instructional offerings;
(2) Guidance, counseling and placement and follow-up services;
(3) Capacity and condition of facilities and equipment;
(4) Employer participation in cooperative programs of vocational education;
(5) Teacher/pupil ratios; and,
(6) Teacher qualifications.

(b) Results of student achievement as measured, for example, by:

(1) Standard occupational proficiency measures;
(2) Criterion-referenced tests; and,
(3) Other examinations of students' skills, knowledge, attitudes, and readiness for entering employment successfully.

(c) Results of student employment success as measured, for example, by:

(1) Rates of employment and unemployment;
(2) Wage rates;
(3) Duration of employment; and,
(4) Employer satisfaction with performance of vocational education students as compared with performance of persons who have not had vocational education.

(d) The results of additional services, as measured by the suggested criteria under paragraphs (a), (b), and (c) of this section, that the State provides under the Act to these special populations:

(1) Women;
(2) Members of minority groups;
(3) Handicapped person;
(4) Disadvantaged persons; and,
(5) Persons of Limited English Proficiency.

Programs which...impart level job skills are to be evaluated (to determine)...the extent to which program completers and leavers:

(a) Find employment in occupations relating to their training; and,
(b) Are considered well-trained and prepared for employment by their employers.

[1] Federal Register, vol. 42. no. 191. October 3, 1977. Sec. 104.402.

APPENDIX B

EVALUATION SPECIFICATIONS IN THE 1984 FEDERAL VOCATIONAL EDUCATION REGULATIONS REQUIRED OF THE STATE BOARD[2]

One of the State Board responsibilities is....(b) The evaluation of the programs, services and activities under this act (Section 401.11) [which cannot be delegated (Section 401.12)].

The State will develop measures for evaluating the effectiveness of programs...including measurement of such factors as:

(i) The occupations to be trained for, which must reflect a realistic assessment of the labor market needs of the State;
(ii) The levels of skills, to be achieved in particular occupations, which must reflect the hiring needs of employers;
(iii) The basic employment competencies to be used in performance outcomes, which must reflect the hiring needs of employers. (Section 401.19(a)(8))

The State will establish appropriate measures for evaluating the effectiveness of programs for the handicapped under the Act, as a component of the measures developed under paragraph (a)(8) of this section. (Section 401.19(a)(9))

Each program year the State will evaluate all of the projects, services, and activities, supported under this part, of at least twenty percent of the participating eligible recipients, so that by the end of a five year period every local program which has received Federal funds will have been evaluated. (Section 401.19(a)(10))

Maryland's 1983-1987 evaluation system addressed mandates in the Vocational Education Programs Guidelines for Eliminating Discrimination and Denial of Services on the Basis of Race, Color, National Origin, Sex and Handicap (Federal Register, vol. 44, no. 56, Wednesday, March 21, 1979). Areas of interest during visits to LEAs included: (1) student admissions to vocational education programs, (2) notification of program offerings, (3) student access to instruction, (4) employment of instructors, (5) student access to counseling; and, (6) student access to employment.

The 1983-87 evaluation system also addressed requirements of the Maryland State Plan for Vocational Education (1983-1987), Goal IV and related administrative provisions describing: (1) federally-mandated program evaluation, (2) federal and state purchased equipment inventory/tagging; and,(3) monitoring of implementation of State standards and specifications for vocational programs.

[2]Federal Register, vol. 50, no. 159, Friday, August 16, 1985.

HSDE-VTE 203-47-8/79
(Revised 1985)

ACTION PLAN

LEA: _____ (Name) _____ (Number)

DATE: _____

LEVEL (CHECK ONE)

- ☐ SCHOOL DISTRICT'S CENTRAL OFFICE
- ☐ SCHOOL _____ (Name, LIST A Identification Number)
- ☐ PROGRAM WITHIN SCHOOL _____ (Name, CIP Number)

AL	OCR	EVALUATION FINDINGS AND RECOMMENDATIONS	PROPOSED ACTION	DVTE	PERSON RESP.	COST	COMPLETION EVIDENCE	COMPLT DATE

78

79

APPENDIX C

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The Mission of Vocational-Technical Education in Maryland

The mission of vocational-technical education in Maryland is to expand, improve, modernize, and develop quality vocational education programs to meet the needs of individuals within the state's existing and future work force by promoting marketable skills, improving productivity and promoting economic growth. The following goals, objectives, and impacts shall act as the basis for the promulgation of activities to achieve the State admission.

GOAL I

Youth and adults will have equal access to vocational-technical education. These populations include individuals differing in race, sex, and ethnic backgrounds; those who are handicapped, disadvantaged, incarcerated and of limited English proficiency; single parents, homemakers, and those seeking to pursue non-traditional training.

Objectives:

1. State and local criteria for the participation of secondary and postsecondary/adult vocational programs will be devoid of admission standards which limit participation of any eligible individuals as defined in the State methods of administration for vocational-technical education.

   Impact - All youth and adults will be given the opportunity to participate in approved vocational education programs regardless of individual differences.

2. Eighty percent of the non-immediate college bound public school (10-12 grade) students will be provided the opportunity to pursue a vocational education option.

   Impact - By 1988, 78,000 10-12 grade students will participate in vocational education programs in one or more of the six fields of endeavor.

   Impact - By 1988, there will be a 10 percent increase in the percentage of female and male students enrolled in programs non-traditional for their sex.

3. Vocational-technical education and related services will be made available to incarcerated, employed, and unemployed adults who need to be trained, upgraded or retrained in order to achieve or maintain economic stability.

   Impact - Program funding priorities will be established yearly to reflect the needs and requests for vocational-technical programs serving client groups under the preparatory or supplemental definitions.

   Impact - All community college applicants will have an opportunity to pursue occupational education within the state's community colleges. By 1988, 75,000 college students will be enrolled in occupational programs.

Objectives:

1. The State of Maryland and all eligible recipients of federal funds under the Carl D. Perkins Vocational Education Act will comply with the requirements of Title I, II, III, and IV of the Act (including maintenance of fiscal effort) and will affirm this compliance by providing assurance related to the same in any applications of funds.

   Impact - The State and the eligible recipients will be judged to be in compliance whenever evaluated or audited.

2. Local applications will set forth the vocational programs, services and activities proposed to be funded and will be coordinated with relevant programs conducted under the Job Training Partnership Act and the Adult Education Act.

   Impact - All eligible recipients will have on file an approved local application and copies of all approved program services and services.

3. Technical assistance for developing, implementing and evaluating vocational programs, activities and services will be available to eligible recipients.

   Impact - Vocational programs, activities and services will reflect the needs of the state and be of sufficient quality to assure support by the business/industrial communities and the general public.

   Impact - Evaluation results will be used to modify programs.

   Impact - Evaluation will be an integral part of vocational activities and services.

4. The Vocational-Technical Education Management Information System will function administratively by providing supply/demand information; on line fiscal accounting, and facility and equipment inventories.

   Impact - Accurate, timely, and auditable stastical and fiscal information will be provided by program, institution and agency.

   Impact - Local, state and JTPA agencies will be provided with vocational education program information in order to coordinate the program and services.

Impact - Adult vocational and apprenticeship related programs will be offered by 60 percent of the community colleges and LEAs. By 1988, 25,000 students will enroll in adult vocational and/or apprenticeship related programs to increase their job competencies.

Impact - Vocational programs will be offered to single parents and homemakers (including displaced homemakers). By 1988, 2,000 individuals will have assessed job training opportunities through enrollment in vocational programs.

GOAL II

All local vocational-technical programs will be of such quality as to assure that all students are provided learning experiences which are realistic and sufficient in light of their occupational objective and labor market needs.

Objectives:

1. Competencies required for success in acquiring and maintaining employment or, continuing training in a postsecondary/adult vocational program of study, including the armed services, will be gained by persons completing vocational programs.

   Impact - All approved secondary vocational programs will be in accordance with the Division of Vocational-Technical Education Program Standards and Specifications.

   Impact - Ninety percent of employers surveyed will attest positively that vocational graduates have effective skills equal to or greater than those required for entry employment. Ninety percent of the completers who indicate in 10th to continue their education at the post high school level will be accepted as credentialed.

   Impact - Vocational education program enrollees will receive instruction designed to improve their academic foundations and to aid in the application of newer technologies.

   Impact - Vocational education at the secondary level and occupational programs at the postsecondary/adult level will be improved, expanded, and modernized to meet the needs of the existing and future work force with particular attention to raising employment competencies.

   Impact - Persons completing an adult vocational retraining/upgrading program will acquire new job competencies to ensure job retention and/or promotability.

2. Business and industry linkages will be developed.

   Impact - By 1988, ten LEAs/CCs will have formed business/industry partnerships leading to the offerings of specialized services to adults (including dislocated and unemployed workers) and workers in high technology industries.

3. Consumer Education Opportunities for all participants is approved vocational-technical education programs and exploratory courses will be promoted by eligible recipients.

   Impact - Ninety percent of all vocational students and 50 percent of all nonvocational students will complete at least one consumer unit before high school graduation.

4. Safe and barrier-free facilities, adequate for the content and method of instruction and kind of students enrolled, will be provided.

   Impact - At least one vocationl program in each vocational area will be barrier-free. All approved programs will meet minimum MOSHA health and safety standards by 1988.

5. Leadership, citizenship, and entrepreneurial experiences will be made available through vocational-technical education programs via vocational student organizations or any other approved delivery system which is integral to the institutional program.

   Impact - Competencies relating to world of work such as: entrepreneurial, citizenship, survival, leadership, and human relation skills will be reinforced throughout the student's entire vocational program for ninety percent of vocational program enrollees.

6. Through articulation vocational-technical programs and courses will be promoted for the purposes of reducing unnecessary duplication of facilities, services and student learning and to increase the efficient years of federal, state and local financial resources.

   Impact - By 1988, articulation agreements will be implemented between all secondary and community college delivery systems.

7. Competency-based instruction will be used in vocational-technical programs to provide maximum opportunity for student success.

   Impact - Eighty percent of all approved vocational programs will use competency-based instruction to accommodate individual differences.

8. Consumer and Homemaker Education programs that allow participants to acquire the decision-making, critical thinking, and managerial competencies essential to preparation for the occupation of homemaking and/or dual roles of homemaker/wage-earner will be provided.

   Impact - Approved consumer and homemaking programs will include content in the areas of food and nutrition, consumer education, family living and parenthood education, child development and guidance, housing, home management (including resource management) and clothing and textiles.

GOAL III

Support services will be coordinated with local vocational-technical programs and other MSDE divisions. These services include but are not limited to: career guidance, counseling and placement; vocational support teams for students with special needs; professional development for individuals with responsibility for vocational programs and curriculum development/adaptation and diffusion.

Objectives:

1. Career guidance, counseling and pre-vocational services to assist students in making career decisions consistent with their interest, abilities, and occupational plans will be provided.

   Impact - All handicapped and disadvantaged students and their parents will be provided information concerning the opportunities available in vocational education at least one year before students enter the grade level in which vocational education programs are first generally available in the State, but not later than the beginning of the ninth grade.

   Impact - Career guidance and counseling services on the secondary level will be provided to targeted eligible recipients resulting in 50 percent of those served enrolling in vocational-technical education.

   Impact - Career counseling services on the secondary and postsecondary/adult level will be provided to targeted individuals resulting in 50 percent of those served enrolling in vocational-technical programs.

   Impact - Pre-vocational/exploratory programs will be of sufficient quality to provide 80 percent of those students enrolled in pre-vocational programs with skills, knowledges and attitudes required for selecting and entering vocational-technical programs.

2. Job placement and follow-up services will be provided to completers of preparatory vocational-technical programs with follow-up data collected one year following graduation or completion of the program.

   Impact - Job placement services will be of sufficient quality to assure that 75 percent of the vocational program completers available for employment at the secondary/postsecondary level will find employment related to their vocational training.

   Impact - For the purpose of follow-up program improvement, data will be received from 75 percent of vocational graduates (completers) or a random sample of vocational graduates and their employers one year following graduation (program completion).

3. Supportive services including, but not limited to, vocational assessment and other special services will be provided to students with special needs.

   Impact - Supportive services will be provided for 80 percent of the females and males enrolled in vocational programs non-traditional or their sex to ensure opportunity for successful completion.

   Impact - Supportive services will be provided for 80 percent of vocational students identified as disadvantaged and handicapped and needing assistance to ensure successful vocational program completion.

4. Vocational professional development activities, both preservice and inservice will be provided to improve services for vocational students.

   Impact - Inservice will be provided to at least 25 percent of the teachers, counselors, and administrators to develop skills for integrating students with special needs into regular vocational programs.

   Impact - Inservice will be provided to at least 25 percent of the teachers, counselors, and administrators for developing skills leading to business/industry partnerships.

   Impact - Pre- and In-service will be conducted for at least 25 percent of the educators having vocational responsibilities to improve their skills in developing and/or implementing vocational programs, activities and services for students.

5. Technical committees will assist in the development/adaptation and diffusion of vocational curricula for the improvement of vocational-technical instruction, with emphasis on new emerging technologies.

   Impact - Curriculum development/adaptation services in vocational-technical education will be provided with special emphasis on the newer technologies and the academic foundations to support them.

   Impact - Curriculum development/adaptation in vocational-technical education will be designed to improve postsecondary/adult occupational programs and related services for out-of-school youth and adults with emphasis on employed and unemployed workers, single heads of household, homemakers (including displaced homemakers).

GOAL IV

All vocational-technical education programs will be planned, implemented, evaluated, and administered consistent with Labor market needs; and the needs, interest, and abilities of clients. Program planning and operation will be coordinated with the appropriate state agencies.

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